



## SUBSTITUTE SPECIFICATION

### Title of the Invention

A Golf club and Method of Making A Golf club

### Background of the invention

The present invention relates to a golf club and more particularly to a wood-type golf club having a specific relationship between the gravity point of its relatively large-sized club head and the torsional rigidity of the club shaft by which the head rebounds fully at impact.

In recent years, metal wood-type golf clubs having a head volume over 250 cc are widely used.

As the increasing in the head volume leads the club head to a large moment of inertia, even if the golfer makes a miss shot off the sweet spot, the movement or reaction of the club head at impact becomes less, and the deterioration in the directional stability of hitting and loss of carry may be reduced. Therefore, large-sized golf club heads are preferred by many golfers, and the head volume is increasing and now reaches to 400 cc or more.

However, when the size of the club head is increased, the distance of the gravity point from the center line of the club shaft is basically increased. During the downswing, the club head is subjected to a force to rotate the club head around the club shaft center line. This force increases substantially in proportion to the increase in the gravity point distance. Therefore, in the case of a club head whose gravity point distance is long, as shown in Fig.8, which shows the head motion

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